1965 MICHIGAN FOREST PEST SITUATION REPORT

by
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Following is a summary of the 1965 forest pest situation on private and state lands in Michigan. Most of the information is from the Monthly Forest Pest Situation Reports submitted by Conservation Department foresters. Additional information was supplied by the Michigan Department of Agriculture, The University of Michigan, Michigan State University, and forest industry cooperators.

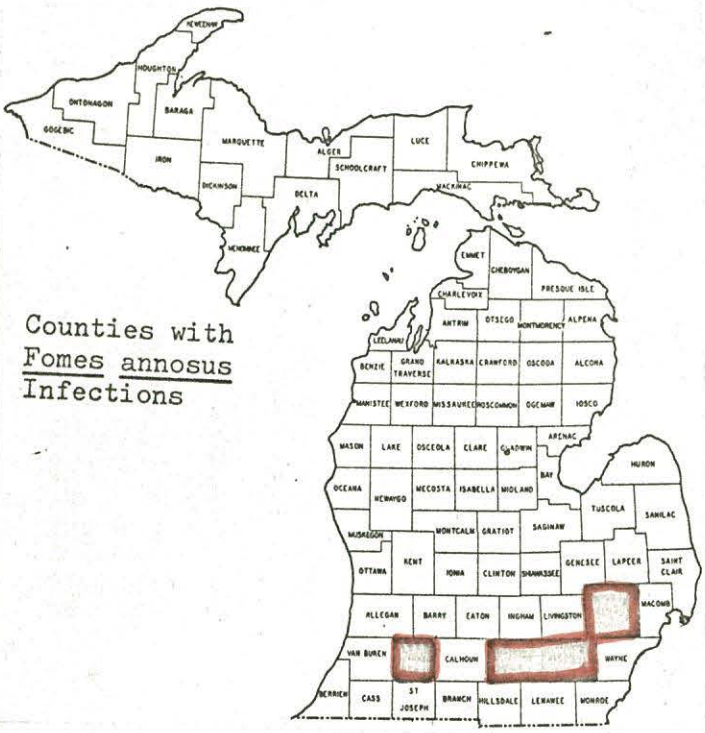
DUTCH ELM DISEASE - The alarming spread of the Dutch elm disease continues northward in Lower Michigan. Last year it was found in the vicinity of Torch Lake in Antrim County and in Alpena. This year, diseased elms were located in Gaylord in Otsego County, in Benzie and Leelanau counties, and near Burt Lake in Cheboygan County. While it may not have been definitely identified in all Lower Michigan counties, it is probably present. In the Upper Peninsula, it is known to be in Menominee and Marquette counties.

Counties with Dutch Elm Disease Infections

WHITE PINE WEEVIL - Reports received from area foresters indicated that the white pine weevil was about the same as in 1964 or lower. Particularly in southern Lower Michigan, the weevil is causing less damage than in past years.

EUROPEAN PINE SHOOT MOTH - Reports of European pine shoot moth damage continue to decline. Infestations persist in many areas but the damage is not great and many plantations are growing well in spite of low shoot moth populations. An important factor in the lower incidence of shoot moth is the greatly reduced amount of red pine being planted in southern Michigan.

ANNOSUS ROOT ROT - Six areas of Fomes annosus infection are now known to exist in Lower Michigan. These are plantations in Oakland, Kalamazoo, Jackson and Washtenaw counties. Two of the areas are in Washtenaw County and two in Jackson County. All of the known infections are plantations on former agricultural land and have been thinned five to twenty or more years ago. Infections vary from one spot of about 60 dead and dying trees in the Oakland County plantation to several hundred dead trees in at least ten infection centers in thirty-five acre plantations in Jackson County.



Counties with Fomes annosus Infections

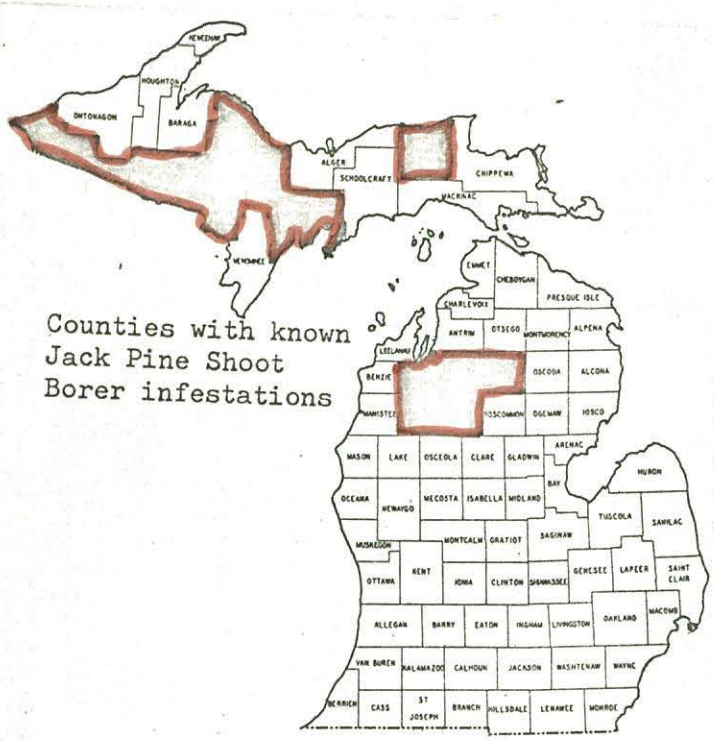
GYPSY MOTH - The 1965 gypsy moth trapping program of the Michigan Department of Agriculture was completely negative. Thus, it appears that the gypsy moth has been eliminated from all known infested areas in Michigan. The trapping program will be discontinued on an extensive basis.

PINE ROOT COLLAR WEEVIL - There was no important change in the damage of the pine root collar weevil this year, just a continued spread, as evidenced by the increasing number of trees killed. Many Scotch pine plantations that have grown past Christmas tree size are being rendered worthless, due to attack by this insect. The heaviest damage occurs in the western section of Lower Michigan, although tree mortality can be found in many parts of northern Lower Michigan. Generally, this insect has not caused serious injury to plantations in the Upper Peninsula.

LARCH SAWFLY - Defoliation by the larch sawfly remains about the same as last year throughout the Upper Peninsula and northern Lower Michigan, but considerably lower than during the heaviest years in the late 1950's. In general, only light defoliation occurred, although scattered reports of stands suffering heavy defoliation were received.

WALKINGSTICK - The Michigan outbreak of walkingsticks occurs in the even-numbered years, and therefore, there was no defoliation in Ogemaw County in 1965.

JACK PINE SHOOT BORER - We have only been aware of this pest in Lower Michigan and eastern Upper Michigan for a few years. However, we now find it quite widespread and causing considerable damage. There is some uncertainty about the exact identification of this insect. In Wisconsin it is recognized as Eucosma sonomana. However, the Canadians do not recognize this species and call it E. gloriola. Regardless of its name, the damage on jack pine can be readily identified and differentiated from the weevil and other pests. The heaviest damage in the Upper Peninsula is in the western section. In Lower Michigan, serious damage has been found in the Wexford, Grand Traverse, Kalkaska, Crawford and Missaukee county area. It is also found in adjoining counties.



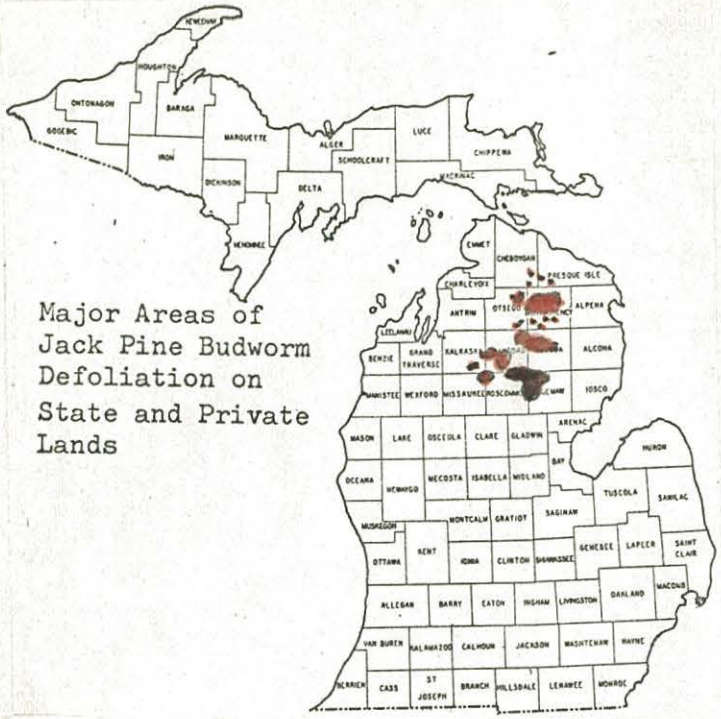
Counties with known Jack Pine Shoot Borer infestations

RED-HEADED PINE SAWFLY - Scattered infestations of the red-headed pine sawfly were reported from Dickinson, Marquette, Chippewa, Mackinac, Baraga and Menominee counties in the Upper Peninsula, and from Oscoda, Roscommon, and Wexford counties in Lower Michigan. This is an increase over last year and probably indicates a buildup of sawfly populations. It is not expected that control will be needed in 1966, except on a few areas of young trees, where 20% or more of the trees are infested.

ASPEN LEAF ROLLERS - Aspen in north central and northeastern Lower Michigan was defoliated in May by aspen leaf rollers, probably Pseudexcentera oregoniana, and other species. Apparently, the defoliation is not a great enough shock to the tree to cause it to refoliate, and therefore the aspen remains with thin crowns all summer.

MAPLE PROBLEMS - Numerous reports of maple trees dying or appearing to look sickly were received. Sometimes this condition can be traced to salt damage when the trees are adjacent to road, and more often, however, the poor condition can probably be attributed to moisture deficiencies that have existed for several years. The symptoms of moisture deficiency in maples often do not become apparent until the second year after the drought conditions, and therefore are difficult to assess.

JACK PINE BUDWORM - Very heavy defoliation of jack pine by the jack pine budworm occurred on many areas of northern Lower Michigan, and there will undoubtedly be some tree mortality. The major areas of infestation on state and private lands were in Otsego, Montmorency, Oscoda, Crawford, Kalkaska, Missaukee, Roscommon and Ogemaw counties. Smaller infestations were present in other counties in northern Lower Michigan. There were no reports of jack pine budworm defoliation on state or private land in the Upper Peninsula.



Major Areas of Jack Pine Budworm Defoliation on State and Private Lands

Most defoliated stands are expected to recover. Wherever possible, on state land, jack pine cuttings this fall and winter will be concentrated in the most heavily defoliated stands. Perhaps the great damage done by the budworm is to the reproduction in the jack pine stands.

This year, the budworm was more prevalent on small red and jack pine plantations, where the feeding will result in some deformity. In some cases, red pine plantations, one foot high, were almost 100 percent infested, although no jack pine could be seen surrounding the plantation.

Immature jack pine stands that were attacked in 1964 suffered very little defoliation in 1965 and have recovered.

BRUNCHORSTIA PINE DIEBACK - Plantation deterioration caused by Brunchorstia pinea is widespread in the Upper Peninsula, as shown by the recent U. S. Forest Service survey of federal plantations. On state land, a limited survey disclosed its presence in Luce and Schoolcraft counties. A more intensive survey will undoubtedly reveal it in plantations in most, if not all, the counties in the Upper Peninsula.

ERIOPHYID MITES - Mites of an undetermined species were reported feeding in the needle sheaths of white and Scotch pine in Genesee and Ingham counties. The feeding results in terminal browning and twisting of the needles. The same or a similar species was found throughout the northern part of Lower Michigan and the Upper Peninsula on red pine. The damage is similar to drought injury, and seems to be associated with forst pockets and cold areas.

BUPRESTID ON PINE - A new type of feeding by a flat headed wood borer was found on jack and red pine in Crawford and Oscoda counties. The larva feeds on the bark and wood surface, completely eating the bark in a circular area about one-half inch in diameter. It later bores into the wood. The feeding area is covered with a hemispherical mass of reddish, lumpy pitch. Young jack and red pine, either natural or planted, are attacked, usually within four feet of the ground. It is interesting that Canadian entomologists from the Sault Ste. Marie laboratory also first became aware of this pest this summer. It is not expected to be particularly important, just another contribution to the problems of jack pine.

EUROPEAN PINE SAWFLY - After several years of high populations of the European pine sawfly, there was a reduction in 1965. Infestations were spotty, with significant damage reported only in Livingston and Washtenaw counties.

FOREST TENT CATERPILLARS - Larvae of the forest tent caterpillar continue to be found in aspen and maple stands in gradually increasing numbers. Some defoliation was reported in Menominee and Mackinac counties in the Upper Peninsula, and this pest is expected to continue to increase and cause widespread defoliation, as occurred in the early 1950's. Of significance, however, is the fact that in the 1950-1953 outbreak in Michigan, defoliation was confined almost entirely to aspen stands. Currently, many caterpillars are being found in maple stands, perhaps indicating that this species will also be attacked as it has in adjacent Canada.

MISCELLANEOUS PESTS - Many other pests caused concern of a local nature and sometimes necessitated control measures by the land owner. These included birch leaf miners, pine needle scales, aphids, and cankerworms.

WEATHER - Weather plays a very important part in the pest problems of Michigan: as a factor in spreading insects and pathogens, as a contributor to the health of the trees, and as a cause of physical damage.

Frosts were widespread in the state in early summer, killing oak leaves and spruce and balsam buds and shoots. Hail in the Upper Peninsula resulted in twig mortality, and high winds throughout northern Michigan caused some tree breakage and probably root damage.

In most areas of the state an extremely dry July resulted in poor growing conditions during the trees' growing period, but a cool, wet August has probably allowed the trees to enter the winter in better condition than recent years.

Lake levels and water table levels have risen during the year.